

# **PERFORMANCE-BASED WATER QUALITY CALCULATIONS      APPENDIX 5D**

## **Worksheet 1**

Page 1 of 3

### **STEP 1      Determine the applicable area (A) and the post-developed impervious cover ( $I_{post}$ ).**

Applicable area (A)\* = 0.326 acres      14192      SQ. FT.

Post-development impervious cover:

structures = 0.079 acres      3456      SQ. FT.

parking lot = \_\_\_\_\_ acres

roadway = \_\_\_\_\_ acres

other:

CONC. PAVERS = 0.017 acres      729      SQ. FT.      911 S.F. @ 80%

CONC. PADS = 0.001 acres      28      SQ. FT.

Total = 0.097 acres

$I_{post} = (\text{total post-development impervious cover} \div A) \times 100 = \underline{30} \%$

- \* The area subject to the criteria may vary from locality to locality. Therefore, consult the locality for proper determination of this value.

### **STEP 2      Determine the average land cover condition ( $I_{watershed}$ ) or the existing impervious cover ( $I_{existing}$ ).**

Average land cover condition ( $I_{watershed}$ ):

If the locality has determined land cover conditions for individual watersheds within its jurisdiction, use the watershed specific value determined by the locality as  $I_{watershed}$ .

$I_{watershed} = \underline{16.0} \%$

Otherwise, use the Chesapeake Bay default value:

$I_{watershed} = 16\%$

ALLOWABLE IMPERVIOUS AREA = 2,271 S.F.

PROPOSED IMPERVIOUS AREA = 4,213 S.F.

PROPOSED ENCROACHMENT INTO RPA = 3,362 S.F.